sequences of M modulations where M is a constant. Each of the M data modulations in each sequence is different from the other ones of the M modulations in the sequence. The M data modulations at the transmitter are provided in accordance with instructions from the controlling station (e.g. receiver). The modulated data is transmitted from the transmitter to the receiver in packets. In a first packet or sequence of packets, the data may be modulated with a first one of the M data modulations. In a second packet or sequence of packets, the data may be transmitted with a second one of the M data modulations. In a third one of the packets or sequence of packets, the data may be transmitted with a third one of the M data modulations.

A1 cont.

Page 11, lines 15-16:

Figure 2 schematically shows another system, generally indicated at 31 and primarily in block form, for sending data in a particular format from a transmitter~~, generally indicated at 30,~~ to a receiver. The system 3[[~~0~~]]1 is designated as a single code system because there is only a single spreading code $C_1(t)$. This causes the rate of the orthogonal signals generated by the spreading code to be fixed. In this system, the number of different rates for the transmission of the data modulations is increased.

A2

Page 12, lines 3, 6-7:

The transmitter shown in Figure 2 may include a channel encoder 14a corresponding to the channel encoder 14, a mapper 16a corresponding to the mapper 16, a modulator 18a corresponding to the modulator 18 and a serial-to-~~digital~~ parallel converter 20a corresponding to the serial-to-parallel converter 20. The parallel output from the converter 20 is introduced on a bus 32 to a multiplier 34 which also receives the spreading code $C_1(t)$. The transmitter shown in Figure 2 distinguishes over the prior art in providing for ~~simultaneous~~ sequential changes in the

A3

data modulations and ~~the spreading code~~ combining the sequentially changed data modulations with the constant spreading code $C_1(t)$.

A3 Cont.

In the transmitter shown in Figure 2, only the single spreading code $C_1(t)$ has been provided. Because of this, a number of the claims have been written with this in mind.

Page 17, line 17; page 18 line 5:

A4

The output from each of the integrators 76_a, 76_b...76_n is partly real and partly imaginary. To convert the output of each of the integrators, 76_a, 76_b...76_n to an entirely real number, the absolute value of each of the outputs is squared. This is indicated at ~~78~~ 78a, 78b…78n in Figure 4. For example, the squaring of the output from the integrator 76a may be indicated as ÿZ_1 ÿ^2 and the squaring of the output from the integrator 76n may be indicated as ÿZ_nÿ^2 . A comparison is then made in a comparator 80 of the magnitudes of the different outputs from the integrators after the different integrated outputs have been squared. The individual one of the integrators 76a, 76b...76n introducing integrated output to the squaring stage 78 and providing the output with the largest magnitude in the stage[[s]] 78a, 78b…78n is then selected by a microprocessor 81 in a selector [[~~2~~]][[8]]2 on the basis of this comparison. The selected one of the integrators 76a, 76b...76n is then de-spread as at 83 to recover the modulated data. The de-spread data is then demodulated as at 84 to recover the data. The data is then analyzed on the basis of the guide lines provided by the mapper 16 and the channel encoder 14 at the transmitter to determine the significance of the data. The despreader 83 and the demodulator 84 are known in the prior art but not in the combination shown in Figure 4 and not in the context or environment set forth in this application.

Page 22, line 6:

Each modulation symbol may be spread by an orthogonal sequence of a length N_C. The chip rate Rchip has a fixed value (Nc)(Ks) to provide the transmitted signal with a substantially constant bandwidth. The maximum length of the spreading sequence may be denoted as Nc, max. Thus, the data rate R[[~~D~~]] [[b]]is

$$Rb = (Rce) \log_2 (LM) (Rchip)/NC$$

$$Rb = (Rcc) \log_2 (VM) Rchip/Nc)$$

A6

The determination of the spread factor (Nc) of the spread code is based upon the delay spread observed at the receiver. (Nc) is chosen to be sufficiently large to avoid inter-symbol interference (ISI) caused by the delay spread of the multipath fading channel. As previously described, multipath fading channels occur when the data transmitted from the transmitter to the receiver also reaches the receiver through paths other than directly from the transmitter to the receiver. These indirect paths can produce inter-symbol interference (ISI) and can cause fading of the data transmitted directly from the transmitter to the receiver.

Page 23, line 2:

A7

Although the individual ones of the stages shown in Figure 6 are known in the prior art, the combination of the stages shown in Figure 6 is not believed to be known in the prior art. Furthermore, the combination of stages shown in Figure 3 and described above is not believed to be known in the prior art. This is particularly true when the combination of stages shown in Figure [[3]]is used as the modulator 114 and the spreader 116 in Figure 6. The combination of stages shown in Figures 1 and 2 can also be used as the modulator 114 and the spreader 116 in Figure 6. In addition, although the puncturer 106 and the interleaver 108 provide advantages in the construction and operation of the transmitter 100 shown in Figure 6, they can be removed from the transmitter without departing from the scope of the invention.